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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/558,270

12/04/2006

Satoshi Takemoto

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EXAMINER

HOANG, PHI

ART UNIT

PAPER NUMBER

2628

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/558,270	<b>Applicant(s)</b> TAKEMOTO ET AL.	
	<b>Examiner</b> PHI HOANG	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 February 2010 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 26 February 2010 have been fully considered but they are not persuasive.

3. With regard to claims 1 and 9, Applicant states, "...Harman does not disclose or render obvious that regarding each viewpoint image of the object to be stereoscopically displayed, an object on an adjacent side of the object to be stereoscopically displayed is rendered in such a manner that a location thereof is deviated toward a side of the deviation direction and of the object to be stereoscopically displayed..." However, Harman (Figures 1-3 and paragraph 0059) provides an example of a 2D image consisting of four layers where each layer contains an object. Harman (Paragraph 0066) further discloses that certain layers are laterally shifted in both a left and right direction in order to create left and right eye images for displaying a stereoscopic image. As

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illustrated in figures 2 and 3, layers 2-4 are shifted laterally where, in this example, the objects of layers 2 and 3 (both objects are adjacent to the object of layer 4) are laterally shifted (deviated toward a side of deviation direction) along with the object of layer 4 to produce left and right eye images. Therefore, Harman discloses "each viewpoint image of the object to be stereoscopically displayed, an object on an adjacent side of the object to be stereoscopically displayed is rendered in such a manner that a location thereof is deviated toward a side of the deviation direction and of the object to be stereoscopically displayed."

Since the position of the Examiner on claims 1 and 9 is maintained, the Examiner's position on claims 2-8 and 10-16 is also maintained.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harman (US 2002/0118275 A1) in view of Inoguchi et al. (US 5,945,965).

6. Regarding claim 1, Harman discloses a stereoscopic image display apparatus for generating a stereoscopic image based on a file, comprising: a means for determining a

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description in a file subject to a stereoscopic viewing-use process out of descriptions in the file (Page 5, paragraph 0077, lines 10-14, data file with data for shifting);

a means for determining a phase deviation (Page 4, paragraph 0065, lines 10-13) amount and a deviation direction (Page 4, paragraph 0065, lines 1-4, lateral shift can be performed in the left or right direction) of an object to be stereoscopically displayed based on the description indicating the stereoscopic viewing-use process (Page 5, paragraph 0074);

and a rendering means for carrying out a rendering process of each viewpoint image of the object to be stereoscopically displayed based on the phase deviation amount and the deviation direction (Page 5, paragraph 0077, lines 1-10)

wherein the rendering means, regarding each viewpoint image of the object to be stereoscopically displayed, renders an object on an adjacent side of the object to be stereoscopically displayed in such a manner that a location thereof is deviated toward a side of the deviation direction of the object to be stereoscopically displayed (Figures 1-3 and paragraph 0066).

Harman does not clearly disclose determining only a portion of descriptions in a file subject to a stereoscopic viewing-use process.

Inoguchi discloses displaying a mixed image of a two dimensional partial image non-stereoscopically and a three-dimensional partial stereoscopic image (Column 7, lines 46-56).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Harman to display only parts of an image

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stereoscopically as disclosed by Inoguchi because background and foreground images can be displayed so as to emphasize foreground images stereoscopically within a scene of a non-stereoscopic background.

7. Regarding claim 2, Harman discloses the object to be stereoscopically displayed is rendered over an object adjacent thereto, or the object adjacent thereto is rendered over the object to be stereoscopically displayed corresponding to the phase deviation amount and the deviation direction when a rendering process in which the location of the object on the adjacent side is deviated is not executed (Page 4, paragraph 0063 and paragraph 0065, lines 1-3, layers of objects placed over another).

8. Regarding claim 3, Harman discloses the object to be stereoscopically displayed, which is to be rendered over, is rendered in such a manner as to be translucent (Page 3, paragraph 0048, variable transparency).

9. Regarding claim 4, Harman discloses the rendering-over process is executed when there is in the file a description indicating that the rendering-over process is to be carried out (Page 5, paragraph 0077, a data file containing shift information is used for rendering the stereoscopic image).

10. Regarding claim 5, Harman discloses regarding each viewpoint image of the object to be stereoscopically displayed, an object on an adjacent side of the object to be stereoscopically displayed is rendered in such a manner that a location thereof is deviated toward a side of the deviation direction of the object to be stereoscopically

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displayed (Figures 1-3) only by an amount equal to or larger than the phase deviation amount (Page 4, paragraph 0065).

11. Regarding claim 6, Harman discloses a rendering process in which the location of the object on the adjacent side is deviated is executed when there is in the file a description indicating that the rendering process in which the location of the object on the adjacent side is deviated is to be carried out (Page 5, paragraph 0077, lines 10-14, the data file contains data for shifting).

12. Regarding claims 7 and 15, Harman discloses in a case that extent information as information indicating the phase deviation amount is described in the file, the phase deviation amount is calculated based on information of a previously retained setting table and the extent information (Page 4, paragraph 0066).

13. Regarding claims 8 and 16 Harman discloses in a case that the object to be stereoscopically displayed is stereoscopically displayed on a near side, the object to be stereoscopically displayed is expanded and rendered, and in a case that the object to be stereoscopically displayed is stereoscopically displayed on a far side, the object to be stereoscopically displayed is reduced in size and rendered (Page 3, paragraph 0049, the size of the object changes as it moves over time).

14. Regarding claim 9, Harman discloses a processor-readable medium tangibly embodying a set of processor-executable instructions, wherein execution of the instructions causes a processor to perform operations comprising: (Page 2, paragraph 0033, lines 11-16) determining a descriptions in a file subject to a stereoscopic viewing-

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use process out of descriptions in the file (Page 5, paragraph 0077, lines 10-14, data file with data for shifting);

determining a phase deviation amount (Page 4, paragraph 0065, lines 10-13) and a deviation direction (Page 4, paragraph 0065, lines 1-4, lateral shift can be performed in the left or right direction) of an object to be stereoscopically displayed based on the description indicating the stereoscopic viewing-use process (Page 5, paragraph 0074);

carrying out a rendering process of each viewpoint image of the object to be stereoscopically displayed based on the phase deviation amount and the deviation direction (Page 5, paragraph 0077, lines 1-10),

.wherein regarding each viewpoint image of the object to be stereoscopically displayed, an object on an adjacent side of the object to be stereoscopically displayed is rendered in such a manner that a location thereof is deviated toward a side of the deviation direction and of the object to be stereoscopically displayed (Figures 1-3 and paragraph 0066).

Harman does not clearly disclose determining only a portion of descriptions in a file subject to a stereoscopic viewing-use process.

Inoguchi discloses displaying a mixed image of a two dimensional partial image non-stereoscopically and a three-dimensional partial stereoscopic image (Column 7, lines 46-56).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Harman to display only parts of an image



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stereoscopically as disclosed by Inoguchi because background and foreground images can be displayed so as to emphasize foreground images stereoscopically within a scene of a non-stereoscopic background.

15. Regarding claim 10, Harman discloses a computer to function as a means for rendering the object to be stereoscopically displayed over an object adjacent thereto, or rendering the object adjacent thereto over the object to be stereoscopically displayed corresponding to the phase deviation amount and the deviation direction (Page 4, paragraph 0063 and paragraph 0065, lines 1-3, layers of objects placed over another).

16. Regarding claim 11, Harman discloses a means for rendering the object to be stereoscopically displayed, which is to be rendered over, in such a manner as to be translucent (Page 3, paragraph 0048, variable transparency).

17. Regarding claim 12, Harman discloses a means for executing the rendering-over process when there is a description indicating the rendering-over process in a file (Page 5, paragraph 0077, a data file containing shift information is used for rendering the stereoscopic image).

18. Regarding claim 13, Harman discloses a means for rendering an object on an adjacent side of the object to be stereoscopically displayed in such a manner that a location thereof is deviated toward a side of the deviating direction of the object to be stereoscopically displayed (Figures 1-3) only by an amount equal to or larger than the phase deviation amount, regarding each viewpoint image of the object to be stereoscopically displayed (Page 4, paragraph 0065).

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19. Regarding claim 14, Harman discloses a means for executing a rendering process in which the location of the object on the adjacent side is deviated when there is in a file a description indicating that the rendering process in which the location of the object on the adjacent side is deviated is carried out (Page 5, paragraph 0077, lines 10-14, the data file contains data for shifting).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHI HOANG whose telephone number is 571-270-3417. The examiner can normally be reached on Mon-Fri, 8:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571-272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Phi Hoang/  
Examiner, Art Unit 2628  
March 26, 2010

/XIAO M. WU/  
Supervisory Patent Examiner, Art Unit 2628